

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 08-321863

(43)Date of publication of application : 03.12.1996

(51)Int.Cl.

H04M 1/03
H04N 7/14

(21)Application number : 07-127776

(71)Applicant : HITACHI LTD

(22)Date of filing : 26.05.1995

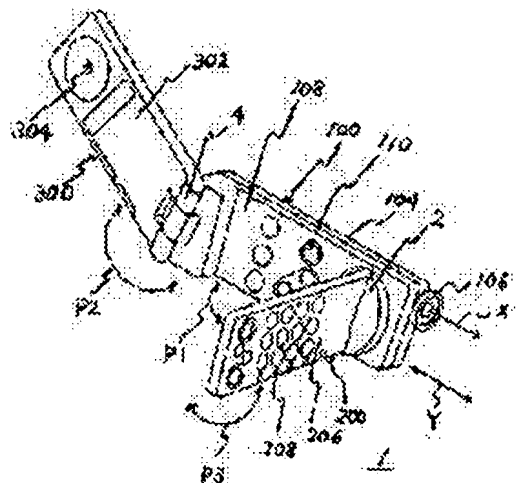
(72)Inventor : KAWAMURA KUNITO
UMEZAWA KOICHI
NEMOTO RYUICHI

(54) PORTABLE RADIO WAVE COMMUNICATION EQUIPMENT

(57)Abstract:

PURPOSE: To provide a portable radio wave communication equipment which sufficient communication posture is obtained at the time of video communication and also at the time of voice communication and which is compactly contained.

CONSTITUTION: A portable radio wave communication equipment 1 is constituted of a first case 100, the second case 200 which is flat and arranged at one end of the first case 100 in a longitudinal direction with a hinge part 2 so as to be folding possible at an arrangement surface 108 and the third case 300 which is flat, obliquely arranged at the other end of the first case 100 and also arranged at the second case 200 which is folded with the hinge part 4 so as to be folding possible. The first case is provided with a camera part 106 and a video communication operating part 110. A picture display part 204 and a voice communication operating part 208 are provided on the surface facing against the second case 200. Moreover, the third case 300 is provided with a speaker part 304 and the microphone part 112 is provided in the neighborhood of the hinge part 2. Thus, sufficient communication posture is obtained at the time of video communication and also at the time of voice communication and the device is compactly contained.



31-36

LEGAL STATUS

[Date of request for examination] 14.05.2002

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number] 3610631

[Date of registration] 29.10.2004

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

*** NOTICES ***

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1] The 1st flat case equipped with a communication circuit, a dc-battery, and the camera section, and the 2nd flat case arranged collapsible through a hinge region in the arrangement side of the 1st case at the end of the longitudinal direction of this 1st case, It consists of the 3rd flat case which is arranged aslant at other ends of said 1st case, and is arranged collapsible through a hinge region at said 2nd folded-up case. Said 1st case While having the camera section with the posture in which an optical axis turns to a 2nd case anchoring-side, the arrangement side of said case is equipped with an image communication link control unit. Said 2nd case While equipping with the image display section the arrangement side concealed in the condition of having folded up, the arrangement side exposed in the condition of having folded up is equipped with a voice communication control unit. Said 3rd case The portable radio communication equipment characterized by having equipped the hinge region [of the arrangement side concealed in the condition of having folded up], and edge side which counters with the loudspeaker section, and preparing the microphone section near the hinge region of the 1st case and the 2nd case.

[Claim 2] The portable radio communication equipment of claim 1 which enables an image communication link where the 2nd case is opened to the hinge region of the 1st case and the 2nd case, and is characterized by preparing the transfer switch which makes voice communication possible where the 2nd case is folded up.

[Claim 3] That a communication link in the condition of having made the communication link possible where the 3rd case is opened, and having folded up the 3rd case to the hinge region of the 1st case and the 3rd case is impossible, or the portable radio communication equipment of claims 1 and 2 characterized by preparing the transfer switch made into a communication link standby condition.

[Claim 4] The hinge region whose folding of the 1st case and 2nd case is enabled is the portable radio communication equipment of claims 1-3 characterized by having the means made pivotable in the condition of having opened.

[Translation done.]

* NOTICES *

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] This invention relates to the portable radio communication equipment which can divide a case into plurality, is changing this case corresponding to voice communication and an image communication link, and takes the optimal posture for said communication link, and can be contained to Cong Park especially about the portable radio communication equipment in which voice communication and an image communication link are possible.

[0002]

[Description of the Prior Art] In recent years, many pocket mold communication devices in which pictorial communication is possible are proposed with the miniaturization of a communication device. For example, in the portable multi-function telephone, what prepares the door which could open and close on the body with the hinge and equipped it with the input section, prepares a display in a body side, is made to display image data on said display by the talk state, and can conceal said display and input section by the door in the state of receipt is proposed. Moreover, in the pocket form TV phone machine, what equips HEDOSETTO with a loudspeaker, a display, a camera, and a microphone, receives required information, working, and can communicate these situations on real time by the image and voice is proposed.

[0003] These conventional examples are indicated by the open official report of JP,5-130255,A and JP,6-141308,A.

[0004]

[Problem(s) to be Solved by the Invention] According to said conventional example, the image or image information from a communications partner can be displayed on a display, and it can communicate. However, in said 1st conventional example, all various kinds of actuation displays including a display will be exposed by opening a door. For this reason, since the arrangement sides of an actuation key run short if it is going to arrange two or more actuation keys related with an image or voice, enlargement of equipment will be caused. Furthermore, in this conventional example, it is indicated neither about the good message posture at the time of pictorial communication and voice communication, nor compact receipt. Moreover, although it can communicate in said 2nd conventional example, without having a communication device in a hand since various kinds of equipments were formed in the head set, it is difficult must always equip with the head set and to contain a head set to Cong Park.

[0005] This invention is to offer the portable radio communication equipment which it accomplishes in order to solve said technical problem, and a communication link posture with the purpose respectively good at the time of an image communication link and voice communication is acquired, and can be contained in a compact.

[0006]

[Means for Solving the Problem] The 1st flat case equipped with a communication circuit, a dc-battery, and the camera section for the portable radio communication equipment in this invention in order to attain said purpose, The 2nd flat case arranged collapsible through a hinge region in the arrangement

side of the 1st case at the end of the longitudinal direction of this 1st case, It constitutes from the 3rd flat case which is arranged aslant at other ends of said 1st case, and is arranged collapsible through a hinge region at said 2nd folded-up case. While equipping said 1st case with the camera section with the posture in which an optical axis is suitable at a 2nd case anchoring-side While equipping the arrangement side of said case with an image communication link control unit and equipping with the image display section the arrangement side concealed in the condition of having folded up to said 2nd case Equipping with a voice communication control unit the arrangement side exposed in the condition of having folded up, said 3rd case equips the hinge region [of the arrangement side concealed in the condition of having folded up], and edge side which counters with the loudspeaker section, and prepares the microphone section near the hinge region of the 1st case and the 2nd case.

[0007]

[Function] since the portable radio communication equipment was constituted from the 1st, 2nd, and 3rd case which can be folded through the hinge region according to this invention -- the time of receipt -- the time of voice communication -- each at the time of an image communication link -- good -- it can be made a **** gestalt.

[0008] At the time of receipt, the 2nd case and 3rd case can be turned up to the arrangement side of the 1st case, and it can contain the body of a communication device in a compact in it. Under the present circumstances, various kinds of actuation displays can be concealed with the 1st case and 3rd case.

[0009] Moreover, in the time of voice communication, a lug and opening make the microphone section prepared near [which was established in the 3rd edge] the hinge region of the loudspeaker section, the 1st, and the 2nd case approach by opening the 3rd case "in the shape of ****", and it can hold single hand. And since the voice communication control unit about voice communication was prepared in the case side which the 2nd case exposes, the posture in the same voice communication as the usual hand set can be taken.

[0010] Moreover, since the image display section and the image communication link control unit which were concealed are exposed by opening the 2nd case from the gestalt at the time of said voice communication when carrying out an image communication link, the same communication link posture as the usual hand set can be taken, looking at said image display section. And with this posture, an eye line can be moved the image display section and ahead [its] easily, and the optical axis of the camera section can be turned in the direction of this eye line.

[0011]

[Example] Hereafter, one example of the portable radio communication equipment concerning this invention is explained to a detail with reference to drawing 1 - drawing 17 . The front appearance perspective view at the time of an image communication link and drawing 2 drawing 1 the back appearance perspective view at the time of an image communication link and drawing 3 The sectional view of a receipt condition and drawing 5 the front appearance perspective view at the time of voice communication, and drawing 4 An equipment configuration Fig., Drawing 6 the bottom view at the time of receipt, and drawing 8 for the front view at the time of receipt, and drawing 7 The top view at the time of receipt, Drawing 9 the right side view at the time of receipt, and drawing 11 for the rear view at the time of receipt, and drawing 10 The left side view at the time of receipt, For the front view at the time of an image communication link, and drawing 14 , the right side view at the time of an image communication link and drawing 15 are [drawing 12 / the front view at the time of voice communication, and drawing 13 / the busy condition Fig. at the time of voice communication and drawing 17 of the partial external view of the image display section and drawing 16] the busy condition Figs. at the time of an image communication link.

[0012] First, in drawing 1 - drawing 3 , the outline structure of the portable radio communication equipment concerning this example is explained. The 1st flat case 100 which it is the portable radio communication equipment which a sign 1 shows in the gross in drawing 1 , and was equipped with the communication circuit section 102 (it illustrates by drawing 5), a dc-battery 104, and the camera section 106, The 2nd flat case 200 arranged by the end of the longitudinal direction Y of this 1st case 100 collapsible in the arrow-head P1 direction through a hinge region 2 in the arrangement side 108 of the

1st case 100, It is arranged aslant at other ends of said 1st case 100, and the 3rd flat case 300 arranged collapsible at an arrow-head P 2-way is consisted of by the 2nd case 200 folded up by the arrangement side 108 of said 1st case 100 through the hinge region 4. A hinge region 2 makes it operate in the P3 direction pivotable here, where the 2nd case 200 is opened while enabling folding of 200 in Pcase of ** 2nd 1 direction.

[0013] Said 1st case 100 was formed so that the optical axis X of the camera section 106 might turn to a 2nd case 200 anchoring-side, and the optical axis X of the camera section 106 and the longitudinal direction Y of this 1st case 100 might be in agreement, and it has formed the image communication link control unit 110 in the arrangement side 108 of said case.

[0014] Said 2nd case 200 has formed the voice communication control unit 208 in the arrangement side 206 which the image display section 204 is formed in the arrangement side 202 concealed in the condition of having folded up, and is exposed in the condition of having folded up.

[0015] Said 3rd case 300 has formed the loudspeaker section 304 in the hinge region [of the arrangement side 302 concealed in the condition of having folded up] 4, and edge side which counters. Moreover, what is necessary is just to prepare near the hinge region 2 in this example, although the microphone section 112 is formed in the hinge region 2 of the 1st case 100 and the 2nd case 200.

[0016] thus -- since the portable radio communication equipment 1 was constituted from the 1st, 2nd, and 3rd case 100, 200, and 300 which can be folded through hinge regions 2 and 4 according to this example -- the time of receipt -- the time of voice communication -- each at the time of an image communication link -- good -- it can be made a **** gestalt. The condition which the condition which showed the 3rd case 300 of drawing 3 by the dotted line showed the gestalt at the time of receipt, and showed the 3rd case 300 of drawing 3 as the continuous line shows the gestalt at the time of voice, and drawing 1 and drawing 2 show the gestalt at the time of an image communication link.

[0017] Hereafter, with reference to drawing 4 - drawing 17, the portable radio communication equipment 1 concerning this example is explained to a detail.

[0018] First, in drawing 4 and drawing 5, the internal layout and equipment configuration of the portable radio communication equipment 1 are explained. The camera section 106 which the 1st case 100 becomes from two or more lens objects, CCD units, etc. in drawing. While arranging the substrate-like image-processing section 115, an image memory 116, the substrate-like communication circuit section 118, and the substrate-like control section 120 to plate-like The pivotable disc-like hinge region 2 is arranged through a revolving shaft 6 inside the camera section 106, the image-processing section 115, and an image memory 116. Form a dc-battery 104 in the outside of a control section 120, and the thickness of the thickness of the communication circuit section 118, a control section 120, and a dc-battery 104 is made in agreement. The flat gestalt of the 1st case 100 is realized by forming the actuation substrate 122 of the image communication link control unit 110 inside the communication circuit section 118 and a control section 120. Moreover, the edge side of a hinge region 2 was upheaved by the thickness of the 2nd case 200, was prepared, and has prepared the revolving shaft 10 and the microphone section 112 which enable folding of the 2nd case 200 in this ridge 8. Regardless of the motion of the 2nd case 200, the microphone section 112 is formed here so that it may always expose. Moreover, the ridge 124 which upheaved by the thickness of the 2nd case 200 and the 3rd case 300 was formed in the other end of a hinge region 2, and the revolving shaft 12 of a hinge region 4 is formed in this ridge 124.

[0019] The 2nd case 200 has realized the flat gestalt by the actuation substrate 210 of the image display section 204 of the thin form of TFT and the voice communication control unit 208 being put side by side. Moreover, the 3rd case 300 has realized the flat gestalt by arranging the antenna 308 of a thin form and the numeric display 310 of LCD by which internal organs are carried out, and the loudspeaker section 304 to plate-like. In addition, each equipment is connected as shown in drawing 5, and connection of the connection between each case is carried out through opening which was prepared in hinge regions 2 and 4 and which is not illustrated. Among drawing, a control unit 20 consists of an image communication link control unit 110 and voice communication control unit 208 grade, and ROM22 compresses a phase hand's data and image data which received, such as the telephone number,

and the image data photoed in the camera section 106, and it accumulates it temporarily.

[0020] Thus, weight has the 1st case 100 most, the 2nd case 200 has weight next and the 3rd case 300 is made to become the lightweight by taking said internal arrangement in this example. For this reason, in a communication link condition, a user does stable support of the whole by supporting by hand the 1st case 100 which has weight most. Furthermore, attain low center-of-gravity-ization by using the 2nd case 200 which opens a lower part as a revolving shaft as the case which has weight next, and while raising stable support more, the miniaturization of a hinge region 2 is attained. Furthermore, by lightweight-izing the 3rd case 300 which sets a revolving shaft as the upper part and opens it up, while making said stable support into fitness more, the miniaturization of a hinge region 4 is realizable. Moreover, it is effective in making good weight balance of the 2nd case 200 located in a longitudinal direction by the talk state, and the 3rd case 300 opened in back, and stabilizing a message posture.

[0021] Next, based on drawing 6 - drawing 15, the appearance of the portable radio communication equipment 1 is explained to a detail. Drawing 6 - drawing 11 show the appearance at the time of receipt of the portable radio communication equipment 1. In drawing, the appearance at the time of receipt of the portable radio communication equipment 1 is contained by the compact. For example, in this example, 130mm and the minimum height H2 are set up for the longest height H1 in the shape of [which sets 119mm and breadth W to 45mm, and sets thickness D to 24mm / flat] a cube type. In drawing 9, the face shield 306 of the 3rd case 300 was formed in the flat, and it has mitigated the displeasure by the irregularity of the user at the time of putting into a chest pocket etc. while it can carry out stable installation of the portable radio communication equipment 1, when it is placed on a desk. By projecting a part of cylinder-like camera section 106 to a face shield 306 and the face shield 114 of the 1st case 100 which counters in the shape of radii, and on the other hand, forming it in them in the state of receipt, in drawing 6, dead space is mitigated and the whole miniaturization is attained. Moreover, the flat dc-battery 104 is attached in said face shield 114 free [attachment and detachment]. The grip section 126 at the time of a message consists of this dc-battery 104 and a face shield 114. The terminal area 128 for charge is formed in the top face of the 1st case 100 shown in drawing 8. Moreover, the external connection connector 130 is protected by cap and prepared in the right lateral of the 1st case 100 shown in drawing 10. In addition, in this example, the overhang dimension D4 of 4.5mm and the camera section 106 is set [the thickness D1 of the 1st case 100 / the thickness D2 of 13mm and the 2nd case 200] as 5.2mm for the thickness D3 of 6mm and the 3rd case 300. Here, the dimension of the above mentioned portable radio communication equipment 1 shows one embodiment, and does not adhere to this dimension system.

[0022] Next, in drawing 12, the portable radio communication equipment 1 prepares the transfer switch which is not illustrated to a hinge region 4, and changes the portable radio communication equipment 1 electrically into the condition in which voice communication is possible.

[0023] The voice communication control unit 208 prepared in the arrangement side 206 is constituted from 212, the receiving key 214, the call key 216, a symbol key 218, an end key 220, an alphabetic character input switch key group 222, and a power-source key 224 by the ten key. Moreover, the microphone section 112 is exposed to a hinge region 2. On the other hand, the numeric display 310 which displays the contents inputted by the voice communication control unit 208 is formed in the arrangement side 302. Moreover, the zoom key 312 and the image recording key 314 which adjust TEREWAIDO of the camera section 106 are prepared in this arrangement side 302. This zoom key 312 and the image recording key 314 become operational by opening the 2nd case 200 by the transfer switch which was prepared in the hinge region 2 and which is not illustrated.

[0024] Moreover, the hinge region 4 is formed in the 1st case 100 at the include angle whose include angle theta 1 is 15 degrees. For this reason, the 3rd case 300 can be opened at the include angle whose include angle theta 2 is 120 degrees. And in this example, die length H3 when opening the 3rd case 300 was set to 235mm, and the die length H4 of the loudspeaker section 304 and the microphone section 112 is further set as 185mm. For this reason, the voice message posture in which the loudspeaker section 304 and a microphone 112 were put in one hand to a lug and opening in support of the 1st case 100 can be taken reasonable.

[0025] Next, in drawing 13 - drawing 15, the portable radio communication equipment 1 prepares the transfer switch which is not illustrated to a hinge region 2, from the voice talk state of drawing 12, is opening the 2nd case 200 and makes the portable radio communication equipment 1 electrically the condition in which an image communication link is possible. The image communication link control unit 110 prepared in the arrangement side 108 of the 1st case 100 exposed by disconnection of the 2nd case 200 consists of an image exchange key 132, a memory call key 134, and the image send key 136 and the image scrolling key 138. By this image communication link control unit 110, the image displayed on the image display section 204 can be operated. On the other hand, the image display section 204 as shown by drawing 15 is formed in the arrangement side 202, and the 2nd case 200 equipped with this image display section 204 can be rotated in the arrow-head P3 direction by the hinge region 2, and can set the include angle of the image display section 204 as arbitration in the state of a communication link.

[0026] Moreover, in this example, 44.53mm and whole depth DL are set [the width of face DL which opened the 2nd case 200] as 97.52mm for the die length W1 of 96.5mm, the loudspeaker section 304, and the medial axis of the 1st case 100, for example.

[0027] Next, with reference to drawing 1 - drawing 3 and drawing 16, and drawing 17, the operating instructions of the portable radio communication equipment 1 concerning this example are explained.

[0028] First, in the state of receipt of the condition which showed the 3rd case 300 of drawing 3 by the dotted line, the 2nd case 200 and 3rd case 300 can be turned up to the arrangement side 108 of the 1st case 100, and the portable radio communication equipment 1 can be contained in a compact in it. In the state of this receipt, by making the power-source key 224 into ON condition, the portable radio communication equipment 1 can be electrically made into a message standby condition, and the communication link from a partner can be received. Under the present circumstances, the loudspeaker section 304 and the image communication link control unit 110 grade which are arranged in the arrangement sides 108, 202, 206, and 302 of each case can be concealed and protected by the face shield 114 of the 1st case, and the face shield 306 of the 3rd case 300. Especially, damage on the image display section 204, protection of voice communication control unit 208 grade, and malfunction can be prevented. Furthermore, it is effective in improving protection-against-dust nature and dripproofness.

[0029] Next, when the communication link from a partner is received, it tells that the control section 120 sounded the audible tone and received the communication link. When receiving a communication link, the 3rd case 300 is opened, and it is considering as the condition which showed the 3rd case 300 of drawing 3 as the continuous line, and considers as the condition in which a voice message is possible. If the depression of the receiving key 214 is carried out in this condition, it can talk over the telephone. By the time of this voice communication, by opening the 3rd case 300 "in the shape of *****" A user's lug and opening make the microphone section 112 prepared in the loudspeaker section 304 prepared in the 3rd case 300, and a hinge region 2 approach, and it can hold single hand. And since the voice communication control unit 208 about voice communication was formed in the arrangement side 206 which the 2nd case 200 exposes, the posture in the same voice communication as the usual hand set can be taken. When ending a communication link, it can consider as the original receiving waiting machine condition by carrying out the depression of the end key 220.

[0030] On the other hand, when telephoning a partner, it is the talk state shown in drawing 16, and a phase hand's telephone number is inputted with a ten key 212. The inputted telephone number is displayed on a numeric display 310, and a voice message can be carried out by checking the inputted telephone number and carrying out the depression of the receiving key 214. An end key 220 can perform closing. moreover, in this example, through the voice communication control unit 208, a phase hand's telephone number can be inputted and registered, or it can call [the registered telephone number can be shortened with a symbol key 218 and a ten key 212, and it can come out, and] and talk over the telephone.

[0031] Now, when carrying out an image communication link, dispatch and reception are performed by the same actuation as said voice communication. And when carrying out an image communication link, it is opening the 2nd case 200, and a control section 120 detects by switch SUTCHI prepared in the

hinge region 2, and makes the portable radio communication equipment 1 the condition in which an image communication link is possible automatically and electrically. That is, the image communication link control unit 110 and the zoom key 312 which energized and formed the image display section 204 and the camera section 106 in the arrangement side 108 by opening the 2nd case 200, and the record key 314 are made operational. In this condition, the contents which operated the image communication link control unit 110 and the zoom key 312, could switch the receiving image, could record, and were photoed in the camera section 106 can be displayed on the image display section 204, or it can transmit. Termination can cut an image communication link by folding up the 2nd case 200 automatically, can cut voice communication by carrying out the depression of the end key 220 further, and can be made into the original communication link standby condition. Thus, at the time of an image communication link, by opening the 2nd case 200 from the gestalt at the time of said voice communication, since the image display section 204 and the image communication link control unit 110 which were concealed are exposed, the same communication link posture as the usual hand set can be taken, looking at said image display section 204. And with this posture, since an eye line can be easily moved the image display section and ahead [its] as drawing 17 shows, and the optical axis X of the camera section 103 can be turned in the direction of this eye line, it can talk over the telephone, taking a photograph in the camera section 103 without taking an impossible posture. Therefore, according to this example, it is effective if a newspaper reporter, the announcer of television, etc. use a surrounding situation as means of communications which communicates on real time by the image and voice. Moreover, it is effective in the business manager who can display or record the information from a message partner on the image display section 204, and can acquire information.

[0032]

[Effect of the Invention] According to this invention, a respectively good communication link posture is acquired at the time of an image communication link and voice communication, and it can contain in a compact.

[0033]

[Translation done.]

* NOTICES *

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

TECHNICAL FIELD

[Industrial Application] This invention relates to the portable radio communication equipment which can divide a case into plurality, is changing this case corresponding to voice communication and an image communication link, and takes the optimal posture for said communication link, and can be contained to Cong Park especially about the portable radio communication equipment in which voice communication and an image communication link are possible.

[Translation done.]

* NOTICES *

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

PRIOR ART

[Description of the Prior Art] In recent years, many pocket mold communication devices in which pictorial communication is possible are proposed with the miniaturization of a communication device. For example, in the portable multi-function telephone, what prepares the door which could open and close on the body with the hinge and equipped it with the input section, prepares a display in a body side, is made to display image data on said display by the talk state, and can conceal said display and input section by the door in the state of receipt is proposed. Moreover, in the pocket form TV phone machine, what equips HEDOSETTO with a loudspeaker, a display, a camera, and a microphone, receives required information, working, and can communicate these situations on real time by the image and voice is proposed.

[0003] These conventional examples are indicated by the open official report of JP,5-130255,A and JP,6-141308,A.

[Translation done.]

* NOTICES *

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

EFFECT OF THE INVENTION

[Effect of the Invention] According to this invention, a respectively good communication link posture is acquired at the time of an image communication link and voice communication, and it can contain in a compact.

[Translation done.]

* NOTICES *

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] According to said conventional example, the image or image information from a communications partner can be displayed on a display, and it can communicate. However, in said 1st conventional example, all various kinds of actuation displays including a display will be exposed by opening a door. For this reason, since the arrangement sides of an actuation key run short if it is going to arrange two or more actuation keys related with an image or voice, enlargement of equipment will be caused. Furthermore, in this conventional example, it is indicated neither about the good message posture at the time of pictorial communication and voice communication, nor compact receipt. Moreover, although it can communicate in said 2nd conventional example, without having a communication device in a hand since various kinds of equipments were formed in the head set, it is difficult must always equip with the head set and to contain a head set to Cong Park.

[0005] This invention is to offer the portable radio communication equipment which it accomplishes in order to solve said technical problem, and a communication link posture with the purpose respectively good at the time of an image communication link and voice communication is acquired, and can be contained in a compact.

[Translation done.]

* NOTICES *

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

MEANS

[Means for Solving the Problem] The 1st flat case equipped with a communication circuit, a dc-battery, and the camera section for the portable radio communication equipment in this invention in order to attain said purpose, The 2nd flat case arranged collapsible through a hinge region in the arrangement side of the 1st case at the end of the longitudinal direction of this 1st case, It constitutes from the 3rd flat case which is arranged aslant at other ends of said 1st case, and is arranged collapsible through a hinge region at said 2nd folded-up case. While equipping said 1st case with the camera section with the posture in which an optical axis is suitable at a 2nd case anchoring-side While equipping the arrangement side of said case with an image communication link control unit and equipping with the image display section the arrangement side concealed in the condition of having folded up to said 2nd case Equipping with a voice communication control unit the arrangement side exposed in the condition of having folded up, said 3rd case equips the hinge region [of the arrangement side concealed in the condition of having folded up], and edge side which counters with the loudspeaker section, and prepares the microphone section near the hinge region of the 1st case and the 2nd case.

[Translation done.]

JAPANESE

[JP,08-321863,A]

.....
CLAIMS DETAILED DESCRIPTION TECHNICAL FIELD PRIOR ART EFFECT OF THE
INVENTION TECHNICAL PROBLEM MEANS OPERATION EXAMPLE DESCRIPTION OF
DRAWINGS DRAWINGS CORRECTION OR AMENDMENT
.....

[Translation done.]

* NOTICES *

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] The front appearance perspective view at the time of the image communication link of one example of this invention.

[Drawing 2] The back appearance perspective view at the time of the image communication link of one example of this invention.

[Drawing 3] The front appearance perspective view at the time of the voice communication of one example of this invention.

[Drawing 4] The sectional view of the receipt condition of one example of this invention.

[Drawing 5] The equipment configuration Fig. of one example of this invention.

[Drawing 6] The front view at the time of receipt of one example of this invention.

[Drawing 7] The bottom view at the time of receipt of one example of this invention.

[Drawing 8] The top view at the time of receipt of one example of this invention.

[Drawing 9] Rear view at the time of receipt of one example of this invention.

[Drawing 10] The right side view at the time of receipt of one example of this invention.

[Drawing 11] The left side view at the time of receipt of one example of this invention.

[Drawing 12] The front view at the time of the voice communication of one example of this invention.

[Drawing 13] The front view at the time of the image communication link of one example of this invention.

[Drawing 14] The right side view at the time of the image communication link of one example of this invention.

[Drawing 15] The partial external view of the image display section of one example of this invention.

[Drawing 16] The busy condition Fig. at the time of the voice communication of one example of this invention.

[Drawing 17] The busy condition Fig. at the time of the image communication link of one example of this invention.

[Description of Notations]

1 [-- Communication circuit section,] -- 2 A portable radio communication equipment, 4 -- A hinge region, 100 -- The 1st case 100 and 102 104 [-- Image communication link control unit,] -- A dc-battery, 106 -- The camera section, 108 -- An arrangement side, 110 112 [-- The image display section, 206 / -- An arrangement side, 208 / -- A voice communication control unit, 300 / -- The 3rd case, 302 / -- An arrangement side, 304 / -- The loudspeaker section, X / -- Optical axis of the camera section 106] -- The microphone section, 200 -- The 2nd case, 202 -- An arrangement side, 204

[Translation done.]

* NOTICES *

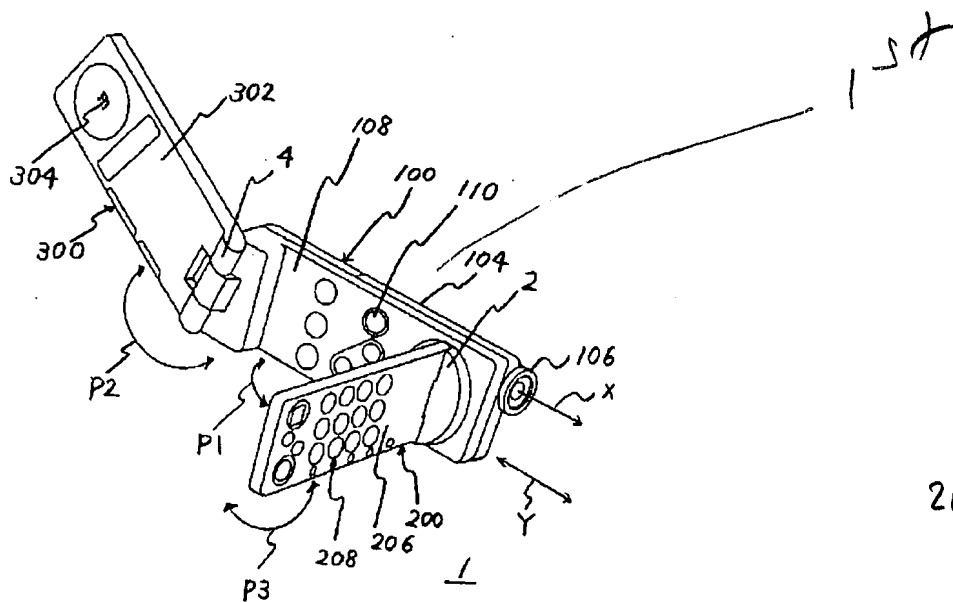
JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DRAWINGS

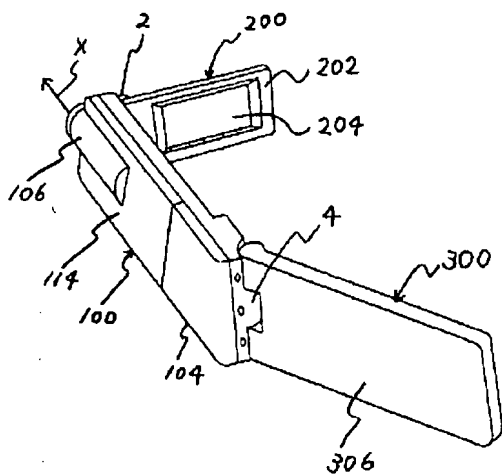
[Drawing 1]

図 1



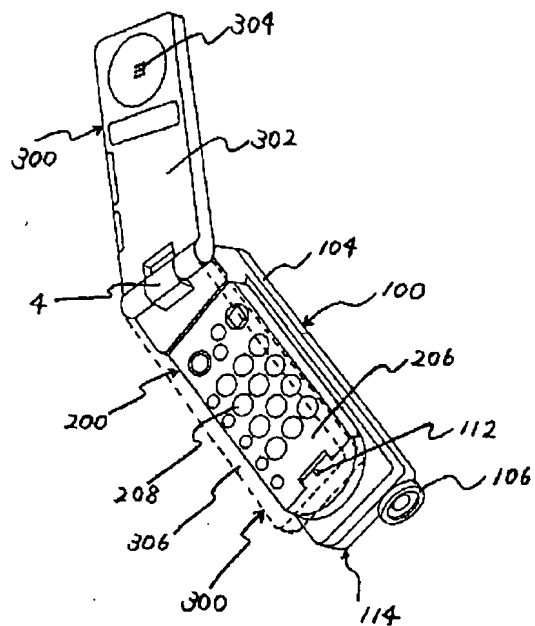
[Drawing 2]

図 2



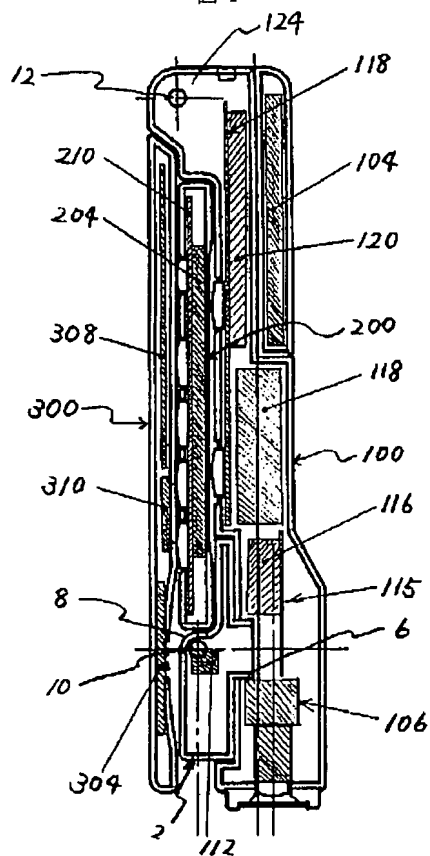
[Drawing 3]

図 3



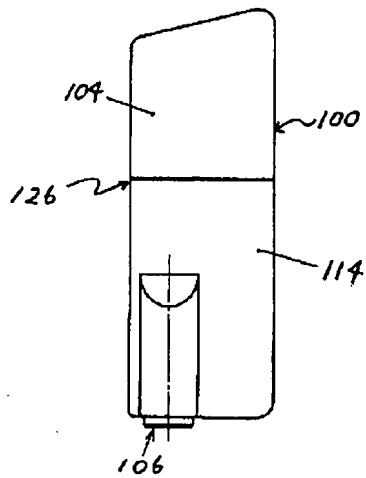
[Drawing 4]

図 4



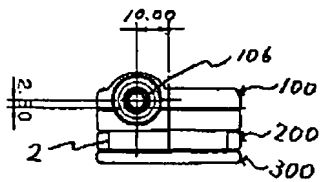
[Drawing 6]

図 6



[Drawing 7]

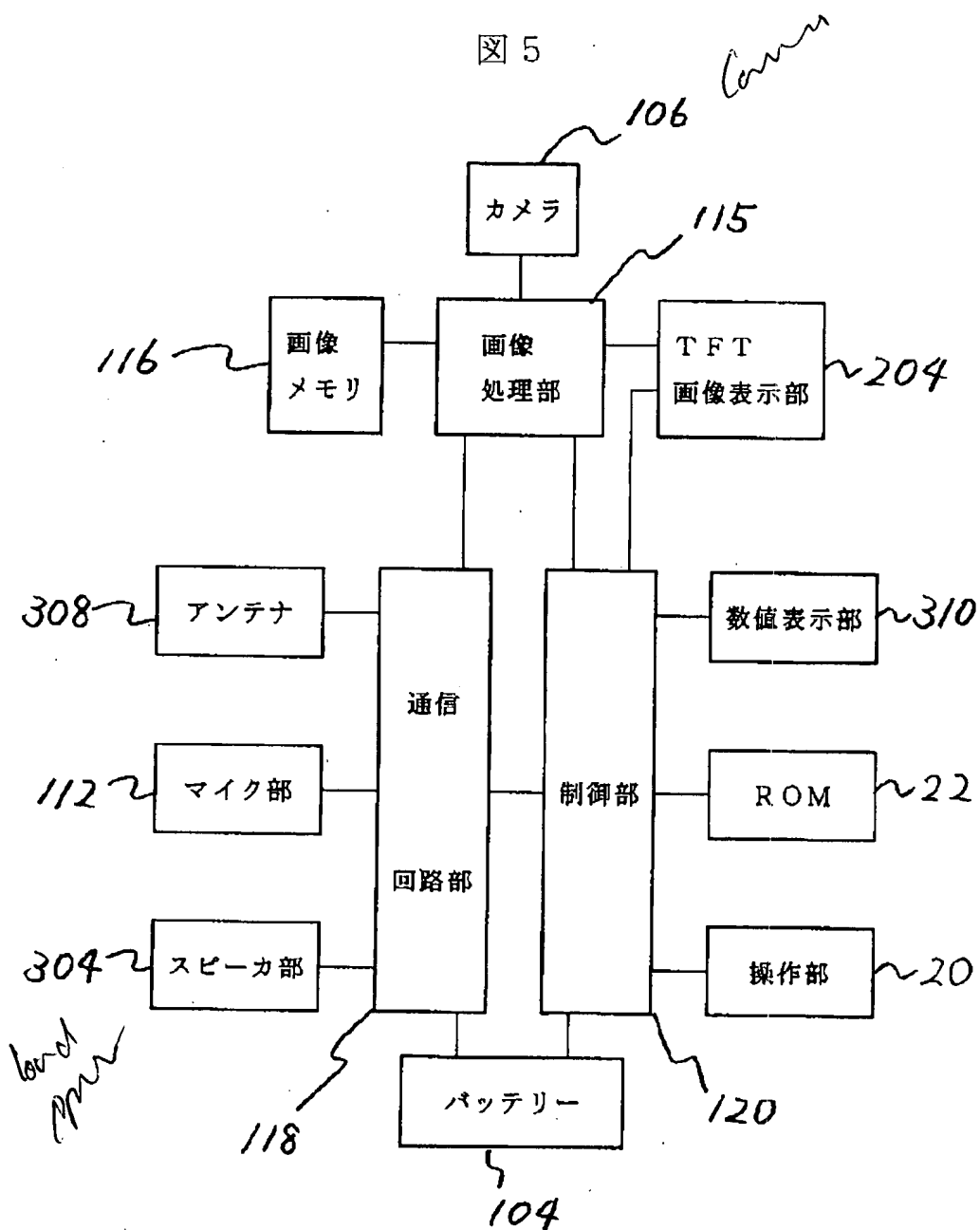
図 7



[Drawing 5]

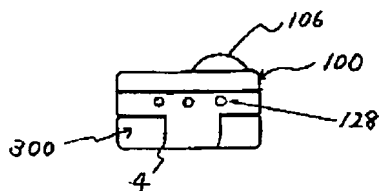
図 5

Drawing 5



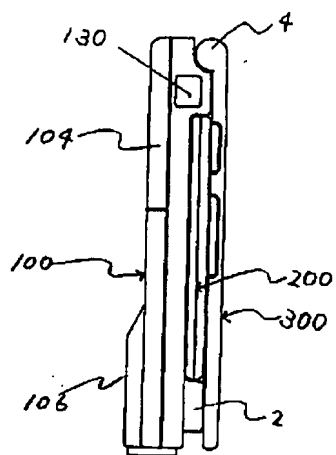
[Drawing 8]

図 8



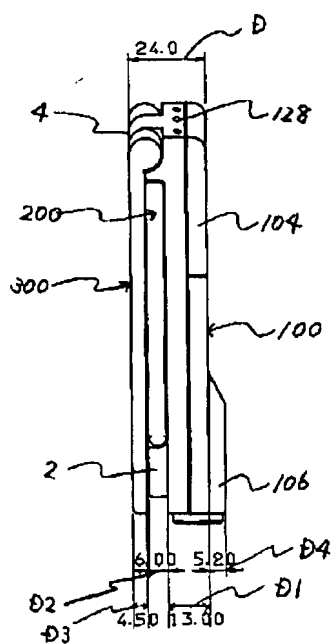
[Drawing 10]

図 10



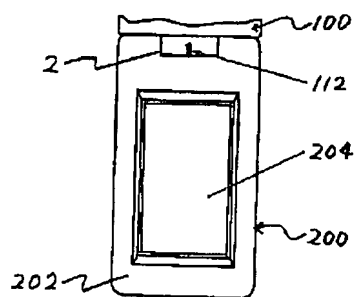
[Drawing 11]

図 11



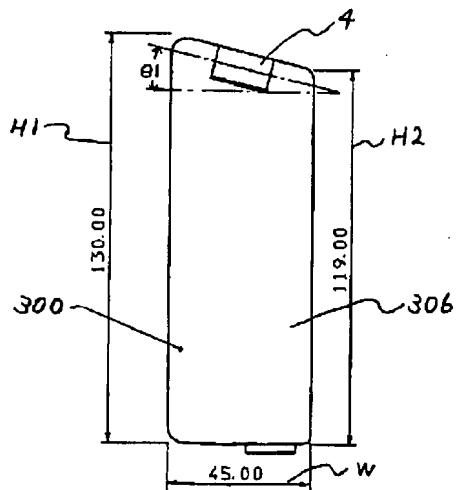
[Drawing 15]

図 15



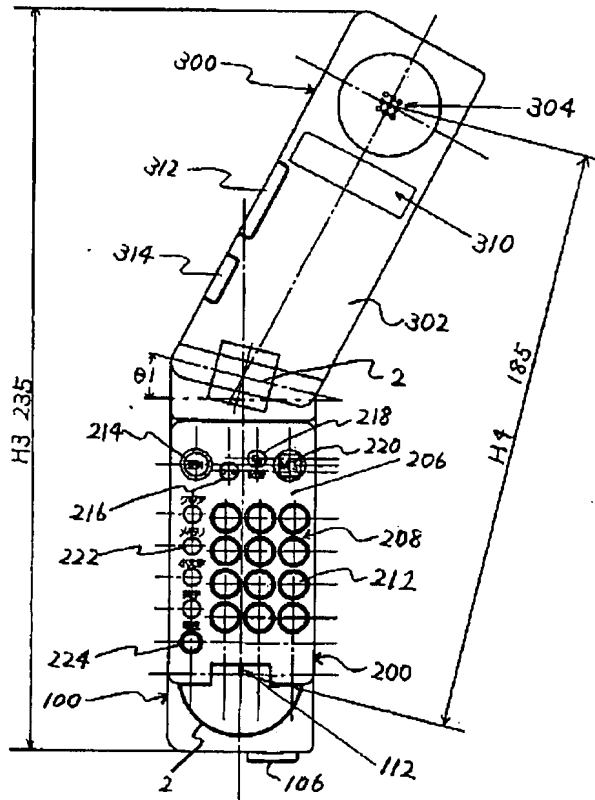
[Drawing 9]

図 9



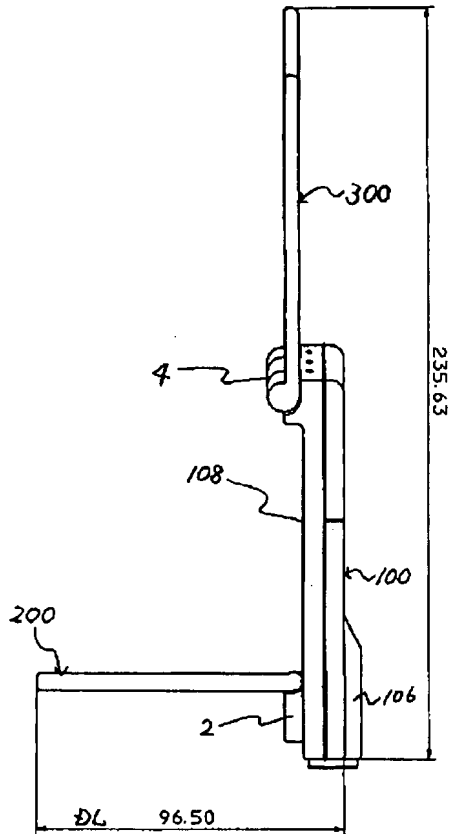
[Drawing 12]

図 12



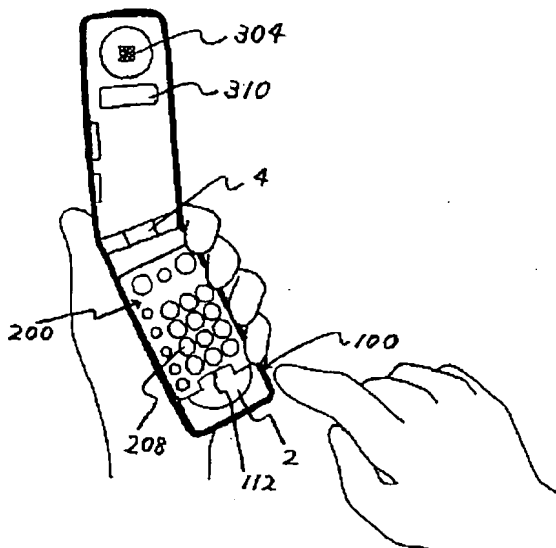
[Drawing 14]

図 1 4



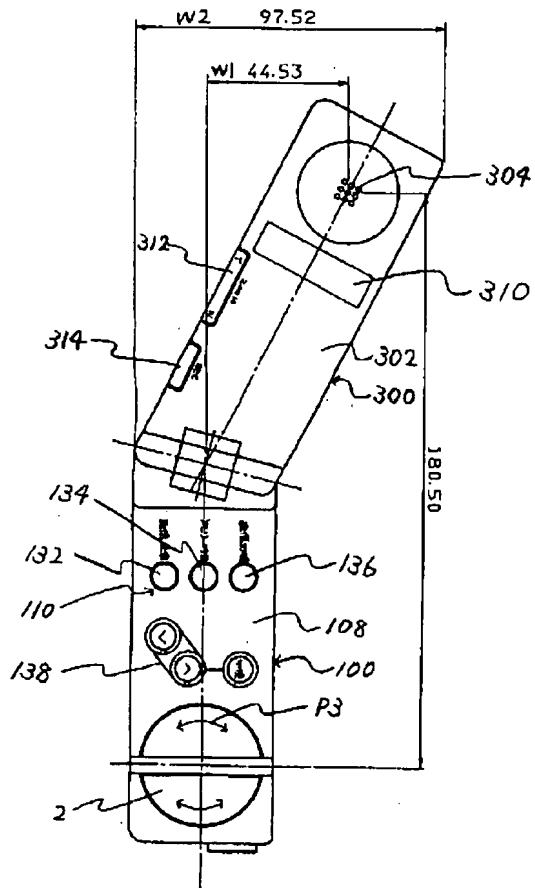
[Drawing 16]

図 1 6



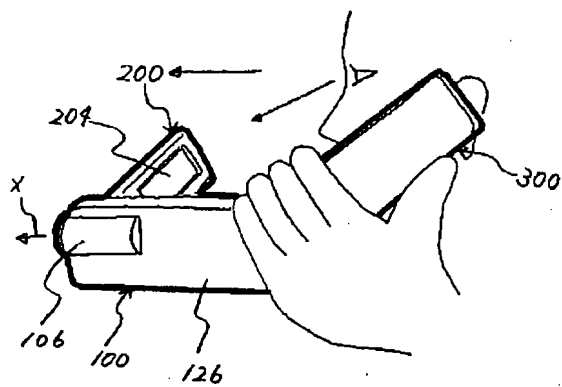
[Drawing 13]

図 13



[Drawing 17]

図 17



[Translation done.]